

**FIGURE 1:** The particle, which is more polarizable than the surrounding media, is pulled toward a field maximum. When the signs of the voltages are reversed under AC conditions, the particle feels the same force.

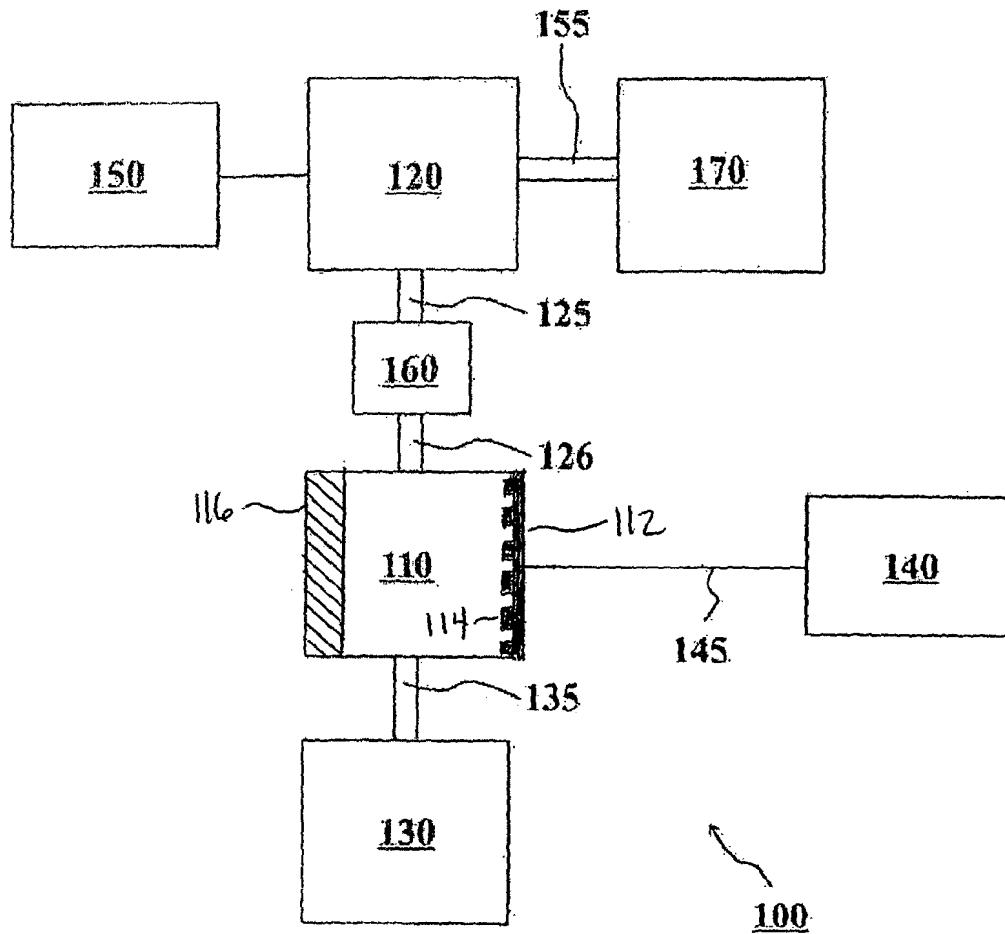


FIG. 2

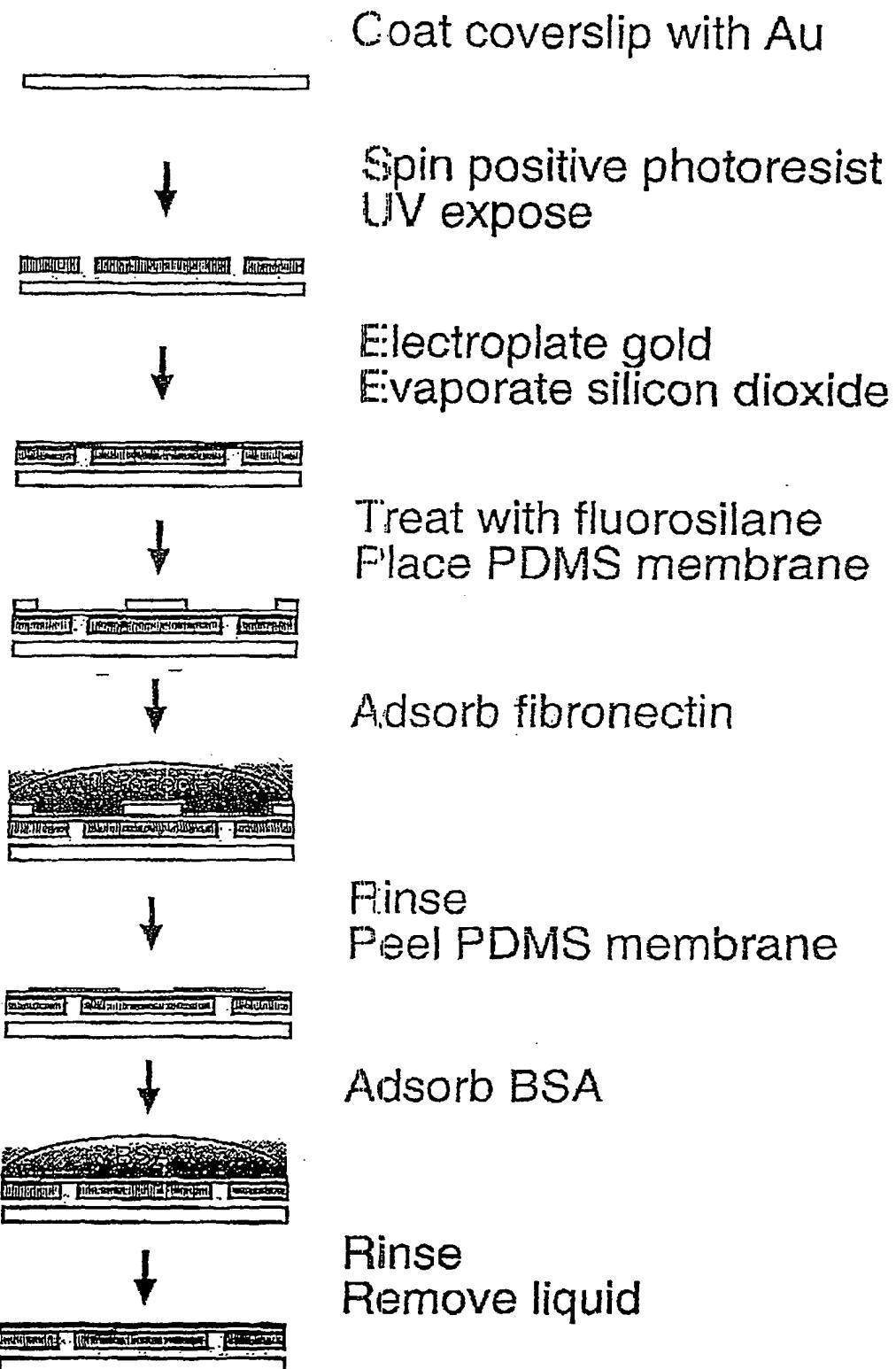


Figure 3 Electrode Array Construction, shown with optional surface patterning using aligned membranes.

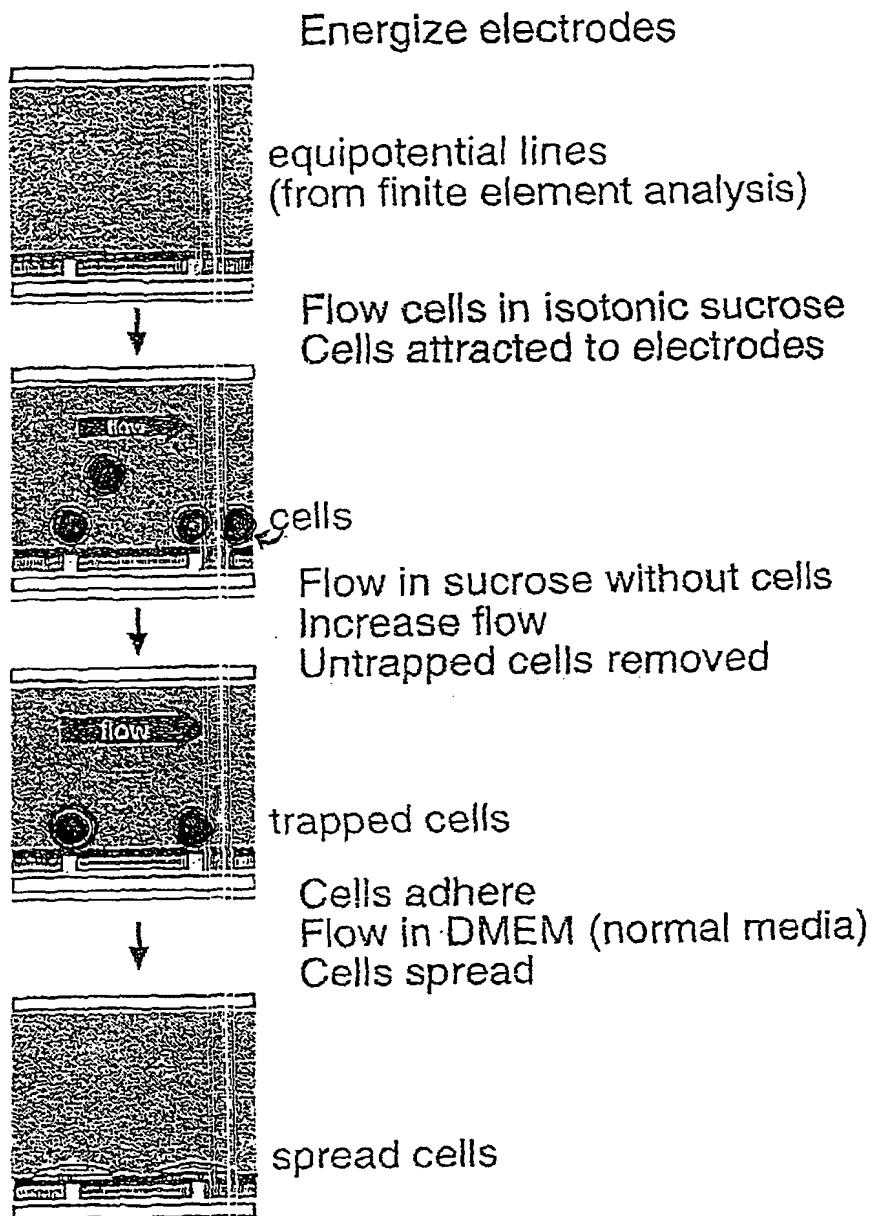


Figure 4 Process of DEP trapping with "post-and-lid" geometry, shown with optional addition of adhesiveness patterning.

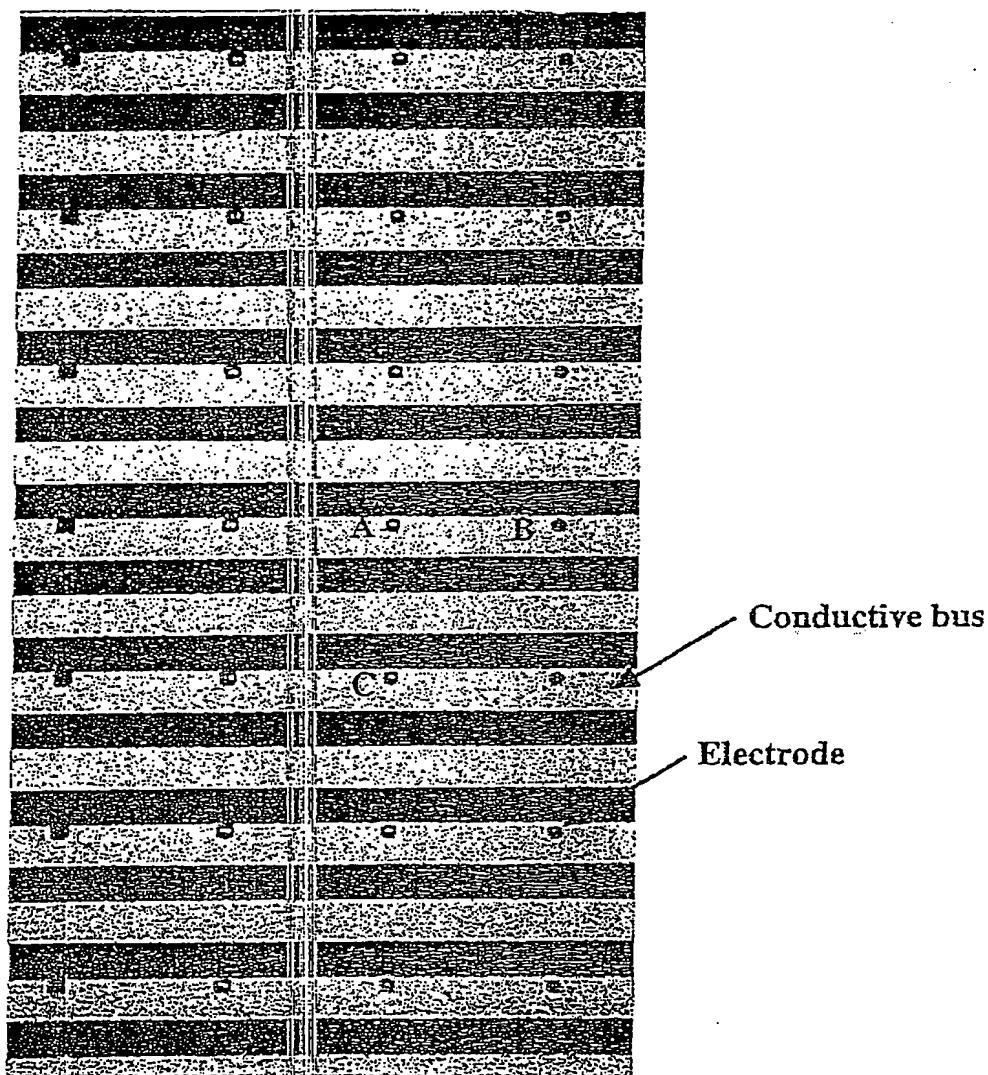


Figure 5: Electrodes (traps) or groups of electrodes with separate electrical connections are independently controllable. The surface of the chip is coated with a clear insulator except at electrode locations. Electrodes A and B are jointly actuated, because they are on the same conductive bus. Electrode C, on a separate bus, is actuated separately from electrodes A and B. Separate connections to individual electrodes are also possible. Buses not containing electrodes are inactive.